

MWI 8715.7

BASELINE

EFFECTIVE DATE: December 13, 1999

EXPIRATION DATE: December 13, 2004

MARSHALL WORK INSTRUCTION

QS01

FACILITY SAFETY PROGRAM

CHECK THE MASTER LIST at
<http://starbase.msfc.nasa.gov/directives/directives.htm>
VERIFY THAT THIS IS THE CORRECT VERSION BEFORE USE

Marshall Work Instruction QS01		
Facility Safety Program	MWI 8715.7	Revision: Baseline
	Date: December 13, 1999	Page 2 of 6

DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		12/13/99	

Marshall Work Instruction QS01		
Facility Safety Program	MWI 8715.7	Revision: Baseline
	Date: December 13, 1999	Page 3 of 6

1. PURPOSE

The purpose of this Directive is to ensure facilities owned, controlled, or operated by Marshall Space Flight Center (MSFC) are designed, constructed, and operated in compliance with all applicable code requirements.

2. APPLICABILITY

These safety requirements and instructions apply to all facilities owned, controlled, or operated by MSFC. They are applicable to all employees on MSFC.

3. APPLICABLE DOCUMENTS

- a. NPG 8715.3, "NASA Safety Manual"
- b. 29 CFR 1926, "Safety and Health Regulations for Construction"
- c. MPG 8715.1, "Marshall Safety Manual"
- d. MWI 8715.12, "Construction Safety"
- e. 29 CFR 1910, "Occupational Safety and Health Standards"
- f. NASA-STD-8719.7, "Facilities System Safety Guidebook"

4. REFERENCES

- a. NPD 8710.2, "NASA Safety and Health Program Policy"
- b. NPG 8820.2, "Facility Project Implementation Handbook"
- c. NPG 8831.2, "Facilities Maintenance and Energy Management Handbook"
- d. Standard Building Code, Southern Building Code Congress International (SBCCI)
- e. National Fire Codes (NFC)

5. DEFINITIONS

- a. Accepted Risk. A hazard whose risk is not eliminated or controlled and that has been accepted by management in accordance with the requirements of NASA-STD-8719.7. Managers are

Marshall Work Instruction QS01		
Facility Safety Program	MWI 8715.7	Revision: Baseline
	Date: December 13, 1999	Page 4 of 6

responsible to make the decision to accept a hazard with its associated risk based on the risk assessment with coordination and concurrence by Safety and Mission Assurance (S&MA) and the program/project manager.

b. Controlled Hazard. A hazard where the likelihood of occurrence or severity of the associated undesirable event has been reduced to an acceptable level, generally a hazard risk index of 3 or 4 as determined by NASA-STD-8719.7, and approved by the responsible organization and S&MA.

c. Eliminated Hazard. A hazard that has been eliminated by completely removing the hazard causal factors.

d. Hazard. Any real or potential condition that can cause injury or death, or damage to or loss of equipment or property.

e. Hazard Assessment. The systematic identification and evaluation of existing and potential hazards and the recommended mitigation for the hazard sources found, based on risk assessment.

f. Hazardous Operations or Facilities. Any operation, process, facility, or equipment that has a potential to result in loss of life, injury to personnel, or damage to systems, equipment, or facilities if not performed safely.

Examples are operations that involve explosives, propellants, high energy, high pressure, oxidizers, corrosives, high elevations, cryogenics, hostile atmosphere, flammables, high electrical energy, radiation, noise, hyperbaric or hypobaric environment, toxic material, and critical hardware.

g. Residual Risk. Risk that remains from a hazard after all mitigation and controls have been applied.

6. INSTRUCTIONS

a. Basic Requirements

(1) Facilities are designed, constructed, operated, and maintained in accordance with the applicable documents, national standards, including ANSI, and international standards as applicable. Where conflicting requirements exist, the most stringent is used. Waivers/variances to any code requirement will be in accordance with MPG 8715.1.

Marshall Work Instruction QS01		
Facility Safety Program	MWI 8715.7	Revision: Baseline
	Date: December 13, 1999	Page 5 of 6

(2) S&MA will perform facility safety tasks at each phase of the facility life cycle, including concept development, design, procurement, construction, activation, operation, and disposal. NASA-STD-8719.7 will be utilized as a guide for implementing a facility safety program to meet the requirements of NPG 8715.2.

(3) S&MA will perform facility safety inspections of all MSFC facilities at least annually. Hazardous facilities will be inspected on a more frequent basis.

b. Construction Safety

(1) Construction work will be performed in accordance with Occupation Safety and Health Administration (OSHA), 29 CFR 1926.

(2) Facility construction safety programs will be conducted in accordance with MWI 8715.12.

c. Facility Hazard Assessment

(1) Facility hazard assessments are performed for all hazardous facilities and systems based on the facility risk indicator as explained in NASA-STD-8719.7.

(2) The responsible organization or S&MA performs and updates facility hazard assessments in accordance with NASA-STD-8719.7, this Instruction, and guidelines from S&MA.

(3) The responsible organization develops and submits to S&MA closure rationale for identified hazards. S&MA reviews and approves the closure rationale.

(4) The responsible organization ensures any required closure actions or controls are implemented.

(5) S&MA tracks hazard status and verifies corrective action(s) is implemented. Hazard status is either open, closed, or accepted risk. Open hazards are not closed until the approved corrective action(s) to eliminate or control the hazard is completed.

(6) The responsible organization or S&MA ensures risk assessments are performed for hazards associated with current or planned ground-based activities in accordance with the requirements of NASA-STD-8719.7.

Marshall Work Instruction QS01		
Facility Safety Program	MWI 8715.7	Revision: Baseline
	Date: December 13, 1999	Page 6 of 6

(7) For accepted risk, the manager/director of the responsible organization documents acceptance based upon risk assessment with coordination and concurrence by S&MA and program/project manager, as applicable.

7. NOTES

None

8. SAFETY PRECAUTIONS AND WARNING NOTES

None

9. RECORDS

- a. The responsible organization/owner of the facility will maintain facility hazard analyses for the life of the facility.
- b. Facility safety inspections shall be documented and retained for five years in accordance with 29 CFR 1960.26. S&MA maintains the facility safety inspection records in the HAZTRACK Database.

10. PERSONNEL TRAINING AND CERTIFICATION

S&MA personnel involved in facility hazard assessment activities must have engineering or other S&MA-approved technical background. Training in hazard analysis techniques is not required but is strongly encouraged. Training can be obtained through various courses offered periodically by the Employee and Organizational Development Department. All official training records will be sent to the training office.

11. FLOW DIAGRAM

None

12. CANCELLATION

MPG 1700,1, Chapter 1, Section 1-13, "Risk Assessment and Acceptance;" Chapter 4, Section 4-4, "Hazard Assessment;" and Chapter 4, Section 4-6, "Facilities"

Original Signed by
Sidney P. Saucier for

A. G. Stephenson
Director